3.14 HAZARDOUS MATERIALS AND ITEMS OF SPECIAL CONCERN

This section provides a description of the hazardous materials, items of special concern, and related environmental media management programs at McGregor Range.

The ROI is McGregor Range in Otero County, New Mexico; the sanitary landfill on Fort Bliss; the less-than-90-day storage facilities on Fort Bliss; and, the permitted hazardous waste storage facility on Fort Bliss.

3.14.1 Hazardous Materials

3.14.1.1 Hazardous Chemicals

Training exercises and installation maintenance require the use of many types of hazardous chemicals. McGregor Range stores and uses hazardous chemicals, including a variety of flammable and combustible liquids. Types of hazardous chemicals used during range operations include acids, corrosives, caustics, glycols, compressed gases, aerosols, batteries, hydraulic fluids, solvents, paints, cleaning reagents, pesticides, herbicides, lubricants, fire retardants, photographic chemicals, alcohols, insecticides, sealants, and ordnance.

Fort Bliss prepares a yearly chemical storage report in accordance with the *Emergency Planning and Community Right-to-know Act (EPCRA)* Section 312. The report identifies the hazardous chemicals stored on Fort Bliss, including McGregor Range, in excess of 10,000 pounds, and generally includes the chemical name, physical state of the chemical, associated hazards, type of storage container, amount stored, and storage locations. Twenty chemicals were identified in the 1996 report, to include: aqueous film-forming foam, ethylene glycol, hydraulic fluid, lube oil, oil-based paints, phosphorus, propane, thinner, diesel fuel, gasoline, JP-8, chlorine gas, methanol-based cleaner, sulfuric acid electrolyte, latex paints, chlorofluorocarbons (CFCs), diphacione, isophorone diisocyanate, vinyl acetate, and sulfur dioxide.

In addition to the EPCRA Section 312 chemical storage report, Fort Bliss also prepares a yearly Section 313 chemical use data package. The data package is used to determine if Fort Bliss is required to submit Toxic Release Inventory (TRI) Form R Reports under Section 313. Form R Reports must be submitted for each TRI chemical that is processed, manufactured, or otherwise used, in excess of the reporting threshold quantity. The chemicals on Fort Bliss, including McGregor Range, are categorized as "otherwise used" and the reporting threshold is 10,000 pounds per TRI chemical. In 1996, 14 Fort Bliss TRI chemicals exceeded the 10,000 pound threshold: 1,2,4-trimethyl benzene, benzene, chlorine gas, cumene, ethylbenzene, ethylene glycol, methanol, toluene, xylene, hexane, tert-butyl alcohol, naphthalene, methyl ethyl ketone, and methyl tert-butyl ether. Sufficient quantities of these chemicals fell under EPCRA activity exemptions listed in 40 CFR 372.38. As a result, Fort Bliss had no TRI chemicals to report in the 1996 reporting year.

3.14.1.2 Hazardous Waste

Hazardous chemical use on McGregor Range results in the generation of a small amount of hazardous waste. Commonly generated hazardous wastes may include used fuel and POLs, waste paint, solvents, used batteries, fuel filters, and explosive ordnance destruction wastes. In general, these wastes are generated from vehicle and ground support equipment maintenance, infrastructure maintenance, and training exercises (U.S. Army, 1997o). The transportation, storage, and disposal of these hazardous wastes are regulated by the DOT, OSHA, EPA, and the NMED.

The NMED, Hazardous and Radioactive Material Bureau (HRMB) currently regulates the disposal and environmental remediation of five locales within McGregor Range. These locales include the following:

- McGregor "Rubble Pit" (Landfill No. 13);
- McGregor Range Oxidation Pond;
- McGregor Camp Fire Training Area;
- McGregor Range former Drum Storage Area;
- McGregor Range Open Detonation Unit (permitted for Hazardous Waste Treatment Disposal).

Any alternative use of these properties requires coordination between the Army and the NMED.

The Fort Bliss Range Command (USACASB) hazardous waste program includes an *Installation Hazardous Waste Management Plan* and SOPs for the disposal of hazardous waste and POL products; waste accumulation points (WAPs); and, less-than-90-day storage areas. These documents provide information on training; hazardous waste management roles and responsibilities; hazardous waste identification, accumulation, transportation, storage, and disposal; and, spill control, consistent with federal and state regulations. In addition, a *Spill Prevention Control and Countermeasure Plan* has been developed for the U.S. Army ADA Center and Fort Bliss, WBAMC, Biggs AAF, and the USACASB, to prevent discharges of oil and other hazardous chemicals.

Initially, hazardous waste is managed by a generator (i.e., unit leader or manager, shop supervisor or foremen, or motor pool officer) who has received training in Hazard Communication and Hazardous Waste Site Operations. The waste is accumulated in designated areas known as WAPs, or satellite accumulation areas, that are designated, labeled, operated, and inspected in accordance with SOP requirements, which implement Texas Natural Resources Conservation Commission (TNRCC), NMED, and EPA requirements. Up to 55 gallons of a single hazardous waste stream or 1 quart of acutely hazardous waste may be accumulated in a WAP. There are approximately six WAPs on McGregor Range.

Once a WAP container becomes 80 percent full, appropriate DOT labels are affixed; it is inspected by the Defense Reutilization and Marketing Office (DRMO), and transported within 72 hours to the newly upgraded RCRA Part B permitted hazardous waste storage area located at Biggs AAF, Building 11614.

The facility at Building 11614 is permitted by the TNRCC for storage of RCRA hazardous waste as well as non-RCRA wastes classified by the TNRCC as Class 1. The TNRCC waste Class 1, is defined as: any industrial solid waste or mixture of industrial solid wastes, which, because of its concentration, or physical or chemical characteristics, is toxic; corrosive; flammable; a strong sensitizer or irritant; a generator of sudden pressure by decomposition, heat, or other means; or may pose a substantial present or potential danger to human health or the environment when improperly processed, stored, transported, or disposed of or otherwise managed.

The permit, HW 50296, was issued in January 1991 and is valid until January 2001. The facility includes seven permitted units. The seven units are divided into two areas, the processing area, which includes a metal building (Unit 1) with a storage capacity of 8,800 gallons, a concrete pad (Unit 2) with a storage capacity of 31,900 gallons with no free-liquids, and a canopy facility (Units 3A and 3B) with a storage capacity of 16,720 gallons with no free liquids; and the conforming storage area, which includes three modular buildings (Units 4, 5, and 6) for storing liquid wastes with a storage capacity of 19,800 gallons, and a concrete pad (Unit 7) with a storage capacity of 47,520 gallons with no free-liquids. General information, facility siting, facility management, waste analysis, engineering reports, geology reports, closure and post-closure plans, financial assurance releases from solid waste units and corrective action,

air quality, fees, and confidential information requirements for the RCRA Part B Permit and applicable modifications have been completed in compliance with TNRCC regulations (U.S. Army, 1994c).

One "less-than-90-day" (no permit required) hazardous waste temporary storage location has been established on McGregor Range; however, the unit is not currently operated by the USACASB. Negotiations are currently underway between the Directorate of Environment (DOE) and Range Command to start operations. The 90-day unit will eventually be used by range personnel to temporarily store hazardous waste prior to pick up by a waste contractor for treatment and/or disposal, and the waste will not be transported to the RCRA Part B storage location at Biggs AAF (McKernan, 1997).

In addition, off-specification or stockpiled ordnance may be classified as hazardous waste under the provisions of RCRA. At McGregor Range, ordnance is expended in a variety of small arms, grenades, mortars, howitzers, artillery, rockets, and missiles during training exercises and testing activities. Currently, material classed as ordnance or explosive hazards is either detonated in-place with explosives or removed for further evaluation.

The NMED issued RCRA Part B Permit NM4213720101-01 to the Army ADA Center, Fort Bliss, in June 1995. The permit authorizes treatment of hazardous waste munitions by open detonation (OD) at the OD Treatment Unit until June 2005. The OD Treatment Unit is a manmade excavation, approximately 500 feet by 200 feet by 20 feet deep, used for the destruction of explosives or munitions by detonation from a disposal discharge. It is located on an active portion of McGregor Range within the impact area for ballistic aerial targets, large-caliber munitions, and rockets.

The OD unit has been in use since 1965 to thermally treat pyrotechnics, explosives, and propellants produced from demilitarization of existing stockpiles and off-specification material. The Explosive Ordnance Detachment conducts explosive treatment at the OD unit approximately three to four times per year, or generally every quarter (U.S. Army, 1997p). Quantities of explosives that are currently allowed for treatment, according to the permit are 2,500 pounds per quarter; however, only 69 pounds were treated in CY 96.

In addition, the RCRA Part B Permit requires semi-annual soil sampling in and around the OD Treatment Unit. The OD Treatment Unit has been sampled four times since the permit was issued. The Sampling and Analysis Plan is provided in the permit as Attachment J. Samples are collected at the following locations at a depth of between 6 inches and 1 foot: one sample from the bottom of each of the two OD pits; three samples from the sides of each pit; four samples around the perimeter of each pit to evaluate the effect of kickout; and, three background samples from an area of the site which has not been impacted by operations. Samples are collected at the following locations from a depth of surface to 6 inches and 6 inches to 1 foot: eight random samples from the bottom of the treatment unit (flat area excavated surrounding the pits), and eight samples from the perimeter outside the treatment unit. In addition, samples are taken from 5-foot intervals from a 50-foot boring placed approximately in the middle of the The samples are analyzed for explosives, inorganics (including nitrate-nitrite constituents), metals, polychlorinated biphenyls (PCBs), and dioxins/furans. Metals and nitrate-nitrite concentrations detected are compared to established background levels and the explosives results are compared directly to the laboratory reporting limits. The results for the four compliance sampling events were not found to significantly differ from those of the initial unit characterization. However, the presence of Trinitrotrimethylenetriamine (RDX) and high melting explosive or octogen (HMX), and the conditions at the outer station (001) will be investigated further during the next compliance sampling event.

A permit modification request, for a revised sampling scope to reduce the level of sampling, has been prepared and submitted to the NMED for review and consideration, due to the relative consistency in

conditions at the OD Treatment Unit with ongoing activities. The compliance sampling scope and schedule will be revised, as appropriate, in accordance with NMED recommendations.

Fort Bliss submits a *Biennial Report* to the NMED and EPA prior to March 1, in every even-numbered year and covers the activities for the previous odd-numbered years, per 40 CFR 262.41. This report details information on the hazardous wastes generated, including the DOT hazard class; EPA hazardous waste identification number, quantity of waste; the EPA Identification Number of each treatment, storage, and disposal facility the waste was sent to; and a description of the Fort Bliss waste minimization program. The amounts of hazardous waste generated by Fort Bliss operations at McGregor Range in 1996 are provided in Table 3.14-1 (McKenzie, 1997).

Table 3.14-1. McGregor Range Hazardous Waste Generation Rates 1997

Location	Pounds of Waste Generated
McGregor Range	8,599
McGregor Range OD Treatment Unit	69

3.14.2 Items of Special Concern

3.14.2.1 Medical and Biohazardous Waste

Medical wastes include wastes generated by hospitals, clinics, physicians' offices, dental offices, veterinary facilities, and other medical laboratories and research facilities. Biohazardous waste, often called hospital waste, can typically include human blood and blood products, cultures and stocks of infectious agents and associated biologicals, isolation wastes, contaminated sharps, animal carcasses, contaminated bedding material, pathological wastes, and unused sharps.

McGregor Range generates small quantities of medical wastes at the range clinic. Large-scale training exercises, such as Roving Sands, may add several thousand pounds of waste per month during the exercise. The waste is collected and transported to the Troop Clinic where it is stored. The waste is picked up by a contractor every other day, and removed from the post. Ultimately, the waste is shipped to Dacona, Colorado, for disposal by a medical waste disposal contractor, BFI, in their permitted facility (Sims, 1997).

3.14.2.2 Asbestos

Asbestos-containing materials (ACMs) are those materials that contain greater than one percent asbestos. Friable, finely divided, and powdered wastes containing greater than one percent asbestos are defined as wastes, and are subject to regulation. A "friable" waste is one which can be reduced to a powder or dust under hand pressure when dry. Nonfriable asbestos-containing wastes, such as floor tiles, are considered to be nonhazardous, regardless of their asbestos content, and are not subject to regulation.

Approximately 80 percent of all buildings on Fort Bliss, including McGregor Range, contain some form of asbestos. Many of the buildings were built or renovated between 1940 and 1975, when the use of asbestos was common in the industry. The majority of the asbestos was in the form of pipe insulation. Several other types of ACMs, such as floor tiles, cement siding, and wall/ceiling coverings remain in place throughout McGregor Range facilities. So long as these ACMs remain nonfriable, they are not a health risk.

To date, asbestos surveys have not been accomplished in buildings on McGregor Range. Asbestos testing is being done in buildings that have been identified for renovation or demolition. Asbestos abatement is done prior to renovation or demolition (Felix, 1997).

Fort Bliss has a *Draft Asbestos Management Plan* for the identification and removal of friable asbestos on McGregor Range. Asbestos-containing waste materials resulting from demolition projects are disposed of in the Fort Bliss sanitary waste landfill. The landfill permit from the TNRCC allows disposal of ACM in the landfill. The material is disposed of at the bottom of the working cell and is covered by 1 foot of dirt or 3 feet of solid waste. The Fort Bliss DOE has an Asbestos Program Manager (APM) who is the primary contact for all asbestos-related projects on McGregor Range. The APM has distributed a Command Policy Letter to all personnel regarding command responsibilities, personnel responsibilities, and procedures for accomplishing asbestos-related projects.

3.14.2.3 Lead-based Paint

For a number of years, the Federal Government has been working to reduce the health risk from lead-based paint in residences and other buildings. The use of lead-based paints for residential and consumer use was banned by the Federal Government in 1978. The EPA and HUD, through Federal Register; Volume 63, No. 106, June 1998, "Proposed Rule, Identification of Dangerous Levels of Lead," are seeking to promulgate regulations consistent with Section 403 of the *Toxic Substance Control Act*, as amended by the *Residential Lead-Based Paint Reduction Act of 1992*.

As a means to control and minimize public exposure to lead, Fort Bliss has developed a draft *Lead Hazard Management Plan* that follows the provisions of the *Texas Environmental Lead Reduction Rules*. A Lead-based Paint Management Team that includes representatives from Family Housing, Preventive Medicine, the Public Affairs Office, and the Staff Judge Advocate is in-place at Fort Bliss.

Many of the facilities at McGregor Range were constructed prior to 1978 and are likely to contain lead-based paints. Lead wastes generated from building demolition are characterized to determine if they are a hazardous waste. To date, all lead wastes have been determined to be nonhazardous and are disposed of in the Fort Bliss landfill. If lead wastes were found to be hazardous, they would be stored in a less-than-90-day facility or the on-post permitted hazardous waste storage facility to await treatment or disposal at a permitted off-post facility. The on-post hazardous waste storage facility has a permit from the TNRCC. The permit was granted subject to the TNRCC rules.

3.14.2.4 Pesticides

It is DoD policy to reduce the use of pesticides and Fort Bliss has developed a *Pest Management Plan*, approved in December 1997, to meet this policy. The plan is applicable to McGregor Range operations and describes the installation's pest management requirements; outlines the resources necessary for surveillance and control of pests; and describes administrative, safety, and environmental requirements.

Pesticides and herbicides are not stored on McGregor Range. These materials are stored in their original containers at the following designated areas within the Fort Bliss cantonment area: the pesticide mixing/storage facility, Building 2509; Rock House Building 1235; Building 60-75; the Underwood Golf Course; Veterinary Clinic, and Self-Help Center. The containers are segregated by type and are positioned so the labels are visible. Excess or canceled storage containers are disposed by the DRMO. A sample inventory, from the *Pest Management Plan*, of the types and amounts of pesticides/herbicides maintained on Fort Bliss is provided in Table 3.14-2.

Table 3.14-2. Fort Bliss Pesticide Sample Inventory

Table 3.14-2. Fort Bliss Pesticide Sample Inventory Rodenticides	
Apache Fly Bait	5 lb. (1 unit)
Dursban Pro	8 gal.
Max Force Ant Station	96 stations (4 units)
Ortheen Tree Orna	21 lb. (2 units)
Pest Strips 18.6%	196 oz. (70 units)
PT Pyrethrium PT 565 Plus	972 oz. (54 units)
Resmethrin	77 oz. (7 units)
Rodere-Paraffinized 0.005%	4 units
Tempo 2	10 L (42 units)
Torus (1GR)	5 fl. oz. (15 units)
Insecti	
Carbaryl (Sevin)	60 lb. (6 units)
Combat Bait	252 packs (22 units)
Dipel Dust	224 oz. (14 units)
d-Phenothrin	1,560 oz. (130 units)
Dursban	15 lb.
Dursban-4E	13 gal. (13 units)
Ficam	3 lb. (3 units)
Malathion	220 gal. (44 units)
Perma-Dust	31 lb. (31 units)
Roach Motels	2 units
Safrotrin	87.5 fl. oz. (70 units)
Sevimol	5 gal.
Temp-20%	1,152 packs (48 units)
Torpedo TC	5 gal. (5 units)
ULD-B100	510 oz. (15 units)
ULD-B300	374 oz. (11 units)
Herbicides	
Atrex	8,250 lb.
Chipco 26019	16 gal.
CU2SO4	400 lb.
Dalapon	167 lb.
Hyvar	1,900 lb.
Krovar	1,026 lb.
Pramitol	250 lb.
Roundup	224 lb. (28 gal.)
Tordon	200 lb.
Miscellaneous	
Bird Repellent (liquid)	2 gal. (2 units)
Bird Repellent Roost-No-More	199.5 oz. (19 units)
Mildew Control	304 fl. oz. (19 units)
MSMA	29 gal.

Source: U.S. Army, 1997q.

The Preventive Medicine Section conducts surveys throughout the year to determine what pests are present. On McGregor Range, the primary pests are roaches. This information is provided to the Preventive Maintenance Section to obtain the required pesticides. In accordance with EPA and DoD requirements, the program utilizes four certified Pest Controllers, five in-house DoD-certified herbicide applicators; and the Underwood Golf Course employs one DoD-certified pest applicator and one State of Texas-certified applicator. Each DoD pest controller is certified by the Academy of Health Sciences at Fort Sam Houston, Texas. Recertification is required every 3 years. The Preventive Maintenance Section applies pesticides on McGregor Range as needed to control these pests. In addition, the Preventive Maintenance Section Roads and Grounds crew applies required herbicides. Pesticides and herbicides are only transported in assigned vehicles with lockable storage compartments and each vehicle is equipped with spill control equipment.

Pesticide and herbicide application is documented monthly on Form 1532. The form includes the name of the target pest, type of operation, total units treated, unit, site, name of the pesticide/herbicide applied, amount, final concentration, and hours spent. This information is tracked by the organizations that apply, store, or sell pesticides and herbicides to include the Preventive Maintenance Section, Land Management Section, Underwood Golf Course, Veterinary Clinic, and Self-Help Center. The 1532 forms, which summarize the monthly data, are then sent to Command Headquarters, TRADOC, Entomology in Fort Monroe, Virginia, at the end of each calendar year (McKernan, 1997; U.S. Army, 1997q).

3.14.2.5 Radon

Radon is found in high concentrations in rocks containing uranium, granite, shale, phosphate, and pitchblade. In outside air, radon is diluted to insignificant concentrations. If radon is present in soils surrounding a building, it could potentially enter the building through small openings and accumulate in enclosed areas such as basements.

The Fort Bliss radon-monitoring program was discontinued in 1995 at the direction of the Director of Health Services, Preventive Medicine Department. The program was canceled based on the geological location of the Fort Bliss community, and the results of more than 500 completed radon tests. All analytical results for radon were below the regulatory threshold (Shahrijar, 1997).

3.14.2.6 Low-level Radioactive Waste

Fort Bliss commands, including those on McGregor Range, generate low-level radioactive waste in the form of commodity items such as compasses, dials, gauges, and sighting devices that are no longer fit for use. These wastes include tritium, radium, and promethium. Other radioactive materials, such as chemical warfare alarms and monitors, are shipped back to the Aniston Army Depot for proper management and are not considered Fort Bliss wastes. Medical radioactive waste is not generated on McGregor Range.

All nonmedical, low-level radioactive waste is managed by the Director of Health Services Radiation Protection Officer. A post-radioisotope committee provides oversight to the program. Low-level waste is segregated at a turn-in point and is stored within a double fenced and locked area on the Main Cantonment Area. The building is marked with the words "Radioactive Materials" on three sides. The waste is stored in 55-gallon drums that are also labeled with the words "Radioactive Materials." Fort Bliss generated approximately three 55-gallon drums of low-level radioactive waste materials over the 2-year period 1995 through 1996 (Collins, 1997).

The Director of Health Services Radiation Protection Officer coordinates all shipments with the Army Material Command, who in turn coordinates with the Barnwell, South Carolina, low-level waste disposal

contractor. The disposal contractor completes the proper manifests and labels for the shipment and transports the waste from Fort Bliss to Barnwell, South Carolina.

USAADACENFB Pamphlet 40-1 and SOP "Processing Radioactive Material for Turn-In" provide guidance in the proper procedures for management and turn-in of radioactive commodities.

3.14.2.7 Petroleum Storage Tanks

The underground storage tank (UST) regulations are the responsibility of the EPA and are regulated within RCRA as amended by the Hazardous and Solid Waste Amendments of 1984. The State of New Mexico has adopted their own regulations and has been delegated the federal UST program. The Uniform Fire Code and National Fire Protection Association requirements that address USTs and above-ground storage tanks (ASTs) may be enforced by state Fire Marshals.

Fort Bliss is completing a four-phase project to upgrade their existing USTs to meet federal and state requirements, and reduce their total number of USTs to less than 150. There are 10 USTs and 1 AST located on McGregor Range that are currently in use for storing diesel fuel, leaded and unleaded gasoline, used oil, antifreeze, and JP-8 jet fuel. These tanks range in size from 300 to 20,000 gallons (Lenhart, 1997). The tanks were upgraded prior to December 22, 1998, as required by 40 CFR 280.20, *Upgrading of Existing UST Systems*, (Lenhart, 1999).

Fort Bliss had identified 29 sites that formerly had leaking petroleum storage tanks; however, none of the sites identified were located on McGregor Range. The sites were reported to the TNRCC and NMED, as appropriate and remedial actions were performed in consultation with the respective agency. A list of these sites is provided in the *Fort Bliss Mission and Master Plan PEIS* (Lenhart, 1997).

3.14.3 Related Management Programs

3.14.3.1 Installation Restoration Program (IRP)

The IRP is the DoD program designed to identify, characterize, and remediate environmental contamination on military installations. The program was implemented in response to *Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)* requirements to remediate sites that posed a health threat. Section 211 of the Superfund Amendments Reauthorization Act amended CERCLA and established the Defense Environmental Restoration Program that ensures that DoD agencies have the right to conduct their environmental restoration programs.

Historically, the materials that have been identified during DoD IRP activities have resulted from fuel management and spills, fire protection training, landfills, pesticide application, and industrial operations associated with vehicle operations and maintenance.

The McGregor Range IRP began in 1983, in response to an installation assessment in February 1983. POLs are the primary contaminant of concern on McGregor Range. No off-range contamination has occurred and the range is not on the National Priorities List. A cooperative working relationship has been established between regulatory agencies and the IRP program manager. Citizens have participated in public meetings held before and during major restoration projects.

By 1996, a total of 11 IRP sites had been identified on McGregor Range and entered into the Defense Site Environmental Restoration Tracking System (DSERTS). Ten of the sites are at the McGregor Range Camp or within a few miles of the camp. The other site is the active oxidation pond at Meyer Range (Blough, 1997).

3.14.3.2 Pollution Prevention

EPA and DoD are both in the process of implementing follow-on guidance for EO 13101, Greening the Government. The thrust of this EO is for the Federal Government to take a more aggressive leadership role in promoting recycling and the use of recycled products, as well as to encourage technological innovations and other government-wide initiatives to prevent pollution through waste minimization.

The Hazardous and Solid Waste Amendments of 1984 require RCRA large quantity generators to certify that a program to reduce the amount and toxicity of hazardous waste is in place. RCRA permits for treatment, storage, or disposal of hazardous waste must also contain this certification. As a RCRA large quantity generator and permitted storage and treatment facility, Fort Bliss, including McGregor Range, has made this certification.

TNRCC regulations require the development of a *Source Reduction/Waste Minimization Plan* by facilities that either generate large quantities of hazardous waste or release toxic chemicals. Army policy, set forth in AR 200-1 (U.S. AR 200-1, 1997), is to reduce the quantity or volume and toxicity of hazardous wastes generated by Army operations and activities wherever economically practicable or environmentally necessary. To meet these requirements, Fort Bliss developed a hazardous substance minimization (HAZMIN) plan. The HAZMIN plan, dated January 1996, only addresses the source reduction and waste minimization aspects of pollution prevention. This plan includes activities on McGregor Range. In addition, Fort Bliss will adopt the *Integrated Pollution Prevention Plan (IPPP)*, being developed by the Air Force Center for Environmental Excellence, to address other pollution prevention and waste minimization issues. These issues include water and air pollution, PCB management, reduction of ozone-depleting substances, UST and POL management, energy conservation issues, EPCRA requirements, pesticide management, and solid waste management. The IPPP will include McGregor Range. The final draft of the IPPP was accepted by the Army in July 1998. The plan will be used in September 1998 to develop 12 projects.

In 1995 Fort Bliss was selected by the TRADOC as one of six pilot installations for the implementation of Hazardous Substance Management System (HSMS). The HSMS is the DoD-wide automated system for the "cradle-to-grave" tracking of hazardous chemicals purchased and used on post, and of the hazardous wastes generated and disposed of as a result of using the hazardous chemical. Fort Bliss has achieved HSMS initial operational capability and limited Hazardous Material Pharmacy (HazMart) operations. By August 1998, the two largest users of hazardous materials, the Installation Maintenance Division and the Department of Public Works, were entered in the HazMart component of the HSMS. The HazMart serves as the centralized location on post for the physical management of the requisitioning, receipt, storage, issue, usage, and eventual coordination for the disposal of hazardous chemical and hazardous waste.

Fort Bliss has a central recycling center and one drop-off point that has containers for cardboard, paper, glass, and plastics. A fluorescent tube crushing operation is also being implemented to save valuable space at the landfill and to control the disposal of mercuric compounds contained in the tubes. McGregor Range participates in the Fort Bliss workplace recycling program that was implemented in November 1996. Range personnel turn in used antifreeze, wet lead acid batteries, used tires, used oil, scrap metal, and solvents for recycling.

